

**REMARKS**

Claims 1, 3, 5, 8-9, 12 and 17 have been amended. Support for the amended claims can be found in the specification and the claims as originally filed. No new matter has been added by these claim amendments. Claim 1 has also been amended to recite the phrase “a polyester layer having voids (layer A) and a polyester layer (layer B) having a smaller porosity than layer A, which is formed at least on one surface of layer A.” Further, Claim 1 has been amended to recite the phrase “ wherein the film has a percentage of heat shrinkage in hot air at 95°C of 30-90% in either direction of the heat shrinkable polyester film.” Claim 8 has been amended to delete the phrase “and a percentage of heat shrinkage in hot air at 95°C of 30-90% in either direction of the heat shrinkable polyester film.” Claims 3, 5, 9, 12 and 17 have been amended to claim proper dependency. Claims 2 and 4 have been canceled.

Claims 1, 3, and 5-21 are pending.

**Claim Rejections under 35 U.S.C. § 102**

Claims 1-7, 10-13, and 15-18 stand rejected under 35 U.S.C. § 102(b), as anticipated over Ito *et al.* ("Ito")(U.S. 5,422,175).

Applicants have carefully reviewed the Office Action and respectfully traverse the rejections for the following reasons. Reconsideration of the subject application in light of the present amendments and remarks is respectfully requested.

The present invention claims a void-containing polyester heat shrinkable film. Conventionally, use of a void-containing polyester film as a heat shrinkable film has been associated with problems such as: (1) impaired appearance when used, for example, as labels due to low brightness and too high of total light transmittance; (2) impaired appearance when used, for example, as labels due to degraded printing property caused by increased number of voids, which makes surface roughness of the film surface too high; (3) unattainable adhesion with solvent due to too large of surface roughness; (4) poor balance between printed surface and surface roughness of the opposite side, which results in problems with appearance and mountability on a product; and (5) limited use on PET bottles as, for example, labels due to too high an apparent specific gravity resulting in separation of the label from the PET bottles.

Regarding claims 1-7, 10-13, and 15-18, the Examiner asserts that Ito discloses a void-containing polyester film containing a void-containing polyester layer and at least one surface layer of polyester, where the void-containing layer comprises a polyester and an incompatible thermoplastic resin. Further, the Examiner asserts that the polyester film of the cited reference

would inherently permit adhesion by a solvent, since the films are made of similar materials and have similar physical properties to those of the claimed invention. Applicant respectfully disagrees with the Examiner. Among other things, Ito does not teach adjusting the heat shrinkage of a void-containing polyester film in one direction after heating in hot air at 95 °C, to 30 to 90%, as recited in claim 1, for example. Ito teaches the heat shrinkage of the void-containing polyester film is 1.8% maximum in the main shrinkage direction and 1.0% at maximum in the perpendicular direction at 30 min. and 150 °C (Table 2, Examples 1 and 5). The values are small and outside of the scope of the claimed invention. Moreover, Ito describes a void-containing polyester film for use as labels (not for bottles), posters, recording paper . . . ordinary slips, pressure-sensitive paper, coping paper, printing paper for printers and the like (Col. 2, lines 18-28), where size stability is required even at high temperatures. Therefore, higher heat shrinkage of the film is not preferable.

Moreover, in view of the fact that superior shrinkable properties of void-containing polyester film has been difficult to achieve, conventionally, the present invention provides the conditions for the production of a heat-shrinkable polyester film containing voids that achieves the above-mentioned heat-shrinkage property. (Specification page 13, lines 34-14, line 9). Therefore, applicants submit that Ito does not teach nor suggest the heat-shrinkable polyester film of the present invention as the reference does not teach nor disclose the conditions for the production of the claimed superior heat-shrinkable property. Accordingly, applicants submit that Ito does not anticipate pending claims 1, 3, 5 -7, 10-13, and 15-18 and respectfully request withdrawal of this ground of rejection.

Regarding claims 3-7, the Examiner asserts that Ito teaches drawing polyester films containing incompatible thermoplastics in two directions. As indicated above, Applicants submit that independent claim 1 is allowable over Ito as are pending dependent claims 3 and 5-7, at least due to their dependency and additional recitations. Accordingly, applicants submit that Ito does not anticipate claims 3 and 5-7 and respectfully request withdrawal of this ground of rejection.

Regarding claims 11-13, the Examiner asserts that Ito shows the use of titanium dioxide having a particle size of  $0.3\ \mu\text{m}$  in an amount of 5% by weight of layer B. As indicated above, Applicants submit that independent claim 1 is allowable over Ito as are pending dependent claims 11-13, at least due to their dependency and additional recitations. Accordingly, applicants submit that Ito does not anticipate claims 11-13 and respectfully request withdrawal of this ground of rejection.

Regarding claims 15-18, the Examiner asserts that Ito discloses a film with overall thickness of  $50\ \mu\text{m}$ , a thickness ratio of layer A to layer B of 16.7, printing on said film as well as suggesting neopentylglycol as a component. Once again, as indicated above, Applicants submit that independent claim 1 is allowable over Ito as are pending dependent claims 15-18, at least due to their dependency and additional recitations. Accordingly, applicants submit that Ito does not anticipate claims 15-18 and respectfully request withdrawal of this ground of rejection.

**Claim rejections under 35 U.S.C. § 103(a)**

**Claim Rejections under 35 U.S.C. § 103(a) over Ito et al. in view of Toyo Boseki**

Claims 8-9, 14 and 19-20 stand rejected under 35 U.S.C. § 103(a), as unpatentable over Ito et al. (U.S. 5,422,175A)(“Ito”) in view of Toyo Boseki (EP 1145846-A2)(“Toyo Boseki”).

Applicants have carefully reviewed the Office Action and respectfully traverse the rejections for the following reasons. Reconsideration of the subject application in light of the present amendments and remarks is respectfully requested.

Applicants respectfully submit that none of the cited references disclose or suggest the present invention.

The Examiner alleges that Ito teaches a film having light transmittance values under 30%. The Examiner acknowledges that Ito does not teach a heat-shrinkable film that has the thermal shrinkage values of the applicant’s claimed range nor does Ito show the films in tube form used for containers; however, the Examiner alleges that it would have been obvious to combine the heat-shrinkable polyester films as well as the use of forming tube shapes by bonding the ends of the film taught by Toyo Boseki to the teachings of Ito.

For the reasons previously discussed above, Ito does not teach nor suggest the a heat-shrinkable film with superior brightness of claimed invention. Therefore, applicants submit that it would not have been obvious to combine the teachings of Ito with that of Toyo Boseki to arrive at the present invention. Moreover, Toyo Boseki is not prior art as it was published on October 17, 2001 and the subject application was filed on October 17, 2001; as such, Toyo Boseki cannot remedy any defects found in Ito to render the claims obvious. Accordingly, applicants

respectfully request withdrawal of this ground of rejection as Ito does not render the claims obvious.

**Claim Rejections under 35 U.S.C. § 103(a) over Isaka et al. in view of Ito et al.**

Claim 21 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Isaka *et al.* (Isaka) in view of Ito *et al.* (U.S. 5,422,175A)(“Ito”). Regarding Claim 21, the Examiner asserts that Isaka teaches a method of producing a heat shrinkable polyester tube. However, the Examiner acknowledges that Isaka does not provide a process whereby the solvent or film is heated at a temperature of not more than 70°C. Furthermore, the Examiner admits that Isaka does teach nor mention the brightness of the film used in said process. Applicants respectfully submit that at a minimum Isaka does not teach or suggest producing the heat shrinkable polyester film recited in claim 1. As previously discussed, Ito does not teach nor suggest a film with a heat shrinkage in hot air at 95° C of 30-90%. Ito merely teaches a film having a light transmittance with values under 30%. Therefore, Applicants submit that the combination of Isaka in view of Ito does not render the claim obvious. Accordingly, applicants request withdrawal of this ground of rejection.

**CONCLUSION**

In view of the foregoing amendments and remarks, it is firmly believed that the subject invention is in condition for allowance, which action is earnestly solicited. Entry of these claim amendments as well as prompt and favorable consideration of this Amendment is respectfully requested.


The Office is hereby authorized to charge Deposit Account No. 11-0600 with any additional fees required by this paper or credit any overpayment.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned directly at (202) 220-4415.

Respectfully submitted,

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